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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,974	06/23/2003	Nicholas Mark Alford	348-035	1360

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EXAMINER

RODRIGUEZ, JOSEPH C

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,974

Applicant(s)

ALFORD ET AL.

Examiner

Joseph C Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,12,13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9,12,13 and 16 is/are rejected.
- 7) ☒ Claim(s) 15,17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/3/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 10/3/03 fails to fully comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 as the non-patent literature lacks a date and author citation. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Specification

The abstract of the disclosure is objected to for improper language. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. *It should avoid using phrases which can be implied*, such as, "The

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disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claims 1-6, 9, 12, 13 and 15-18 are objected to because of the following informalities:

Claim 1 reads "A magnetic separator", thus the claims depending therefrom should read "**The** magnetic separator".

In claim 1, line 7, the language "can be" should read "is" as Applicant must positively recite the features of the claimed invention.

Claim 13, line 2, should read "a new **fluid flow** path" to clearly establish antecedent basis for "the flow path" (claim 13, ln. 4).

The claims are also objected to as the form of claims 1, 12 and 13 is improper. Where a claim sets forth a plurality of elements or steps, as in the instant claims, each element or step should be separated by a line indentation. See MPEP 608.01(m) and 37 CFR 1.75(i).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Garaschenko et al. ("Garaschenko ") (US 5,076,914).

Regarding claim 13, Garaschenko teaches a magnetic separator (Fig. 7, 8) comprising a fluid flowing along a flow path (from inlet 13 to outlet 12; col. 6, ln. 10-col. 7, ln. 10), wherein a magnet (15) is movable between a separator position (col. 5, ln. 45-col. 7, ln. 10; Position I) and a release position (Position II).

Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (US 4,722,788).

Regarding claims 12, 13, Nakamura teaches a magnetic separator (Fig. 8) comprising a plurality of tubes (41, 52) in a circular array (implicit from circular shape and annular chamber of first embodiment shown in fig. 4) disposable along a fluid flow path (from inlets 35, 36 to outlets 37, 38), wherein a magnetic shuttle (42) is movable between a separator position (col. 7, ln. 44-col. 8, ln. 10; Fig. 12b, above 44) and a release position (Fig. 12, within 53) within each tube.

Nakamura further teaches an annular baffle (32) encircling the tubes that allows fluid to flow between the positions (col. 5, ln. 39-66).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Elliot (US 3,712,472).

Nakamura as set forth above teaches all that is claimed except for expressly teaching said magnets movable by differential pressure. Elliot, however, the use of differential pressure to move magnets between respective positions in multiple magnetic separator tubes (Fig. 2; col. 5, ln. 10-col. 6, ln. 54). Moreover, the use of differential pressure can be regarded as an art recognized equivalent for moving shuttle magnets in the magnetic separating arts. See MPEP 2144.06. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Nakamura by using differential pressure to move said magnets since Elliott teaches that differential pressure is an art recognized equivalent to the moving means taught by Nakamura.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Elliot as applied to claims 1-6 and 9 above, and further in view of Carr (us 4,457,838).

Nakamura in view of Elliot as set forth above teach all that is claimed except for expressly teaching a control apparatus for supplying compressed air to the tube to move the shuttle between its positions. Elliot, however, already teaches the use of a control system (38, 40) for supplying hydraulic fluid to move the tubes and the mere substitution of air for hydraulic fluid can be regarded as an art recognized equivalent in

the means for creating differential pressure arts. See MPEP 2144.06. For instance, Carr teaches the use of compressed air to move a slidable magnetic assembly (col. 6, ln. 14-38). Moreover, Carr also teaches that the use of air reduces the need for electric motors for moving said magnets (col. 10, ln. 33-36). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Nakamura and Elliott as taught above as compressed air is a well known substitute for hydraulic fluid.

Allowable Subject Matter

Claims 15, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph C Rodriguez whose telephone number is **703-308-8342**. The examiner can normally be reached on M-F during normal business hours (9 am – 6 pm, EST).

The **Official** fax phone number for the organization where this application or proceeding is assigned is **703-872-9326** (After-Final **703-972-9327**).

The **UnOfficial** fax phone number for the organization where this application or proceeding is assigned is **703-306-2571 or 703-308-6552**.

The examiner's **UNOFFICIAL Personal fax number** is **703-746-3678**.

Further, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only.

For more information about the PAIR system, see

<http://pair-direct.uspto.gov>

Should you have questions on access to the Private PMR system, contact the Electronic Business Center (EBC) at 866-217-9197 (Toll Free).

Alternatively, inquiries of a general nature or relating to the status of this application or proceeding can also be directed to the **Receptionist** whose telephone number is **703-308-1113**.

Signed by Examiner Joseph Rodriguez



jcr

November 1, 2004